

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: LUMARK

Report Number: P270275

Luminaire Tested: **NAV-AF-01-D-UNV-SL3-7027-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270275
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24263)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-01-D-UNV-SL3-7027-600-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2969 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

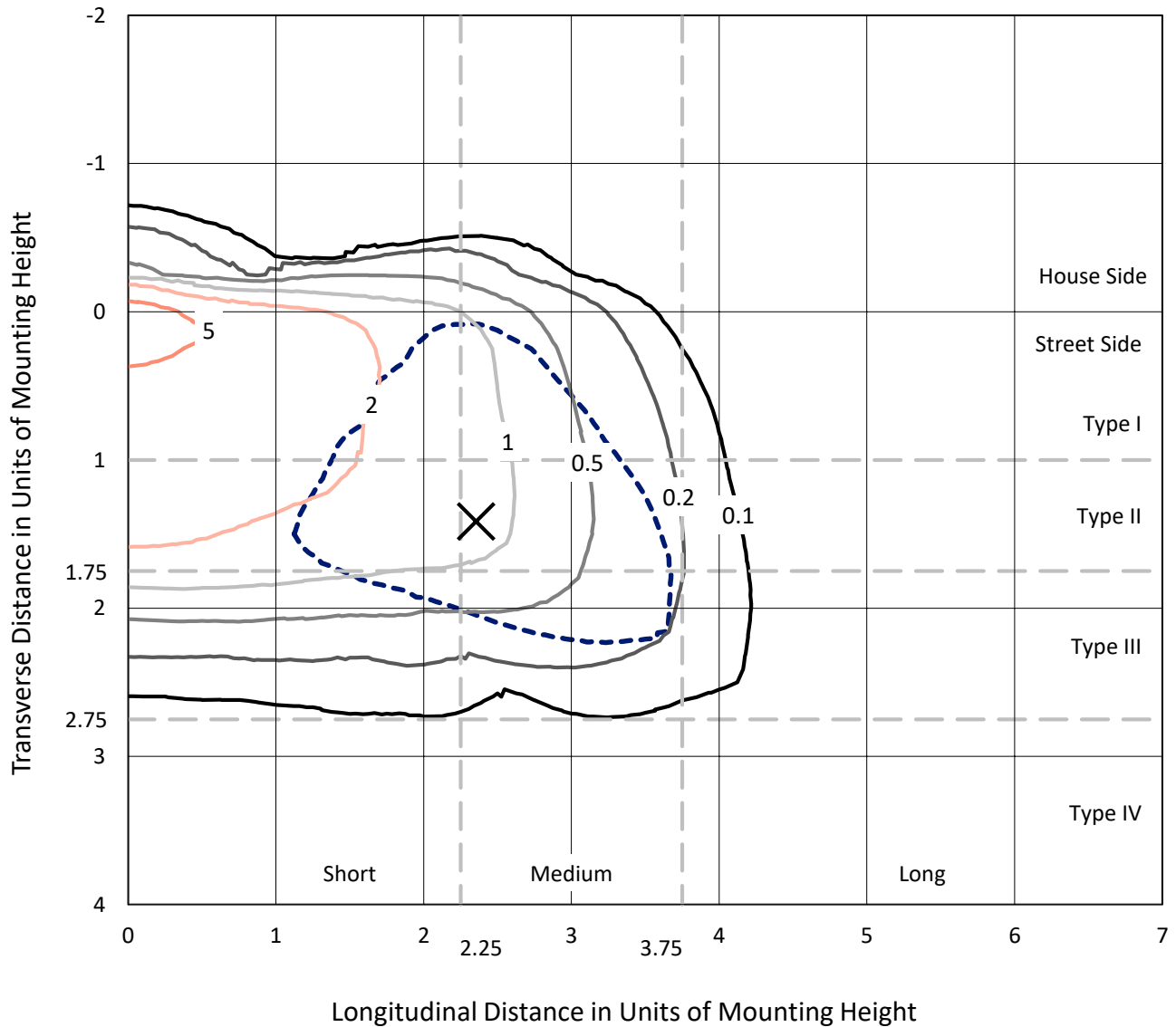


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Iso-Footcandle Lines of Horizontal Illumination

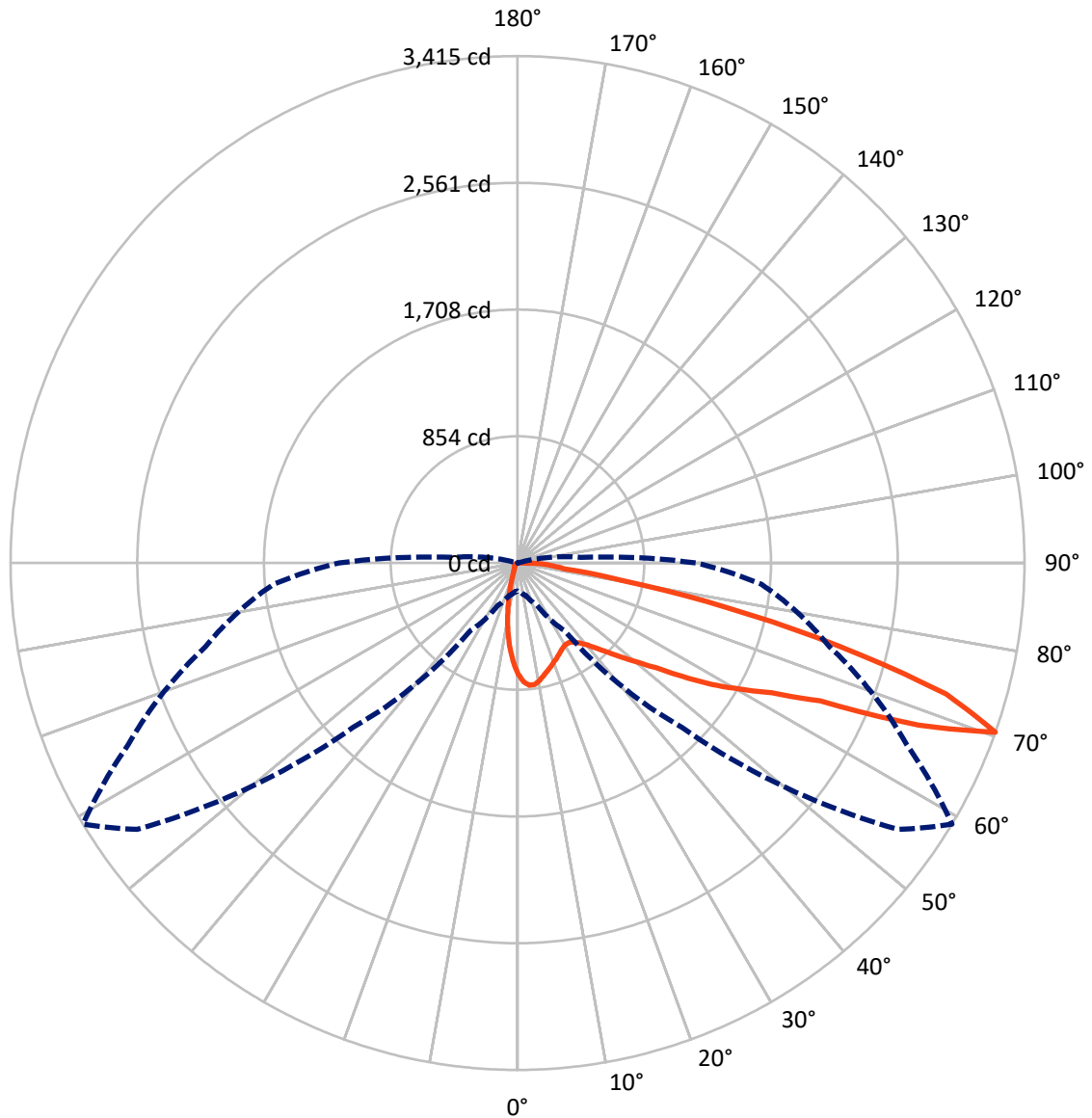
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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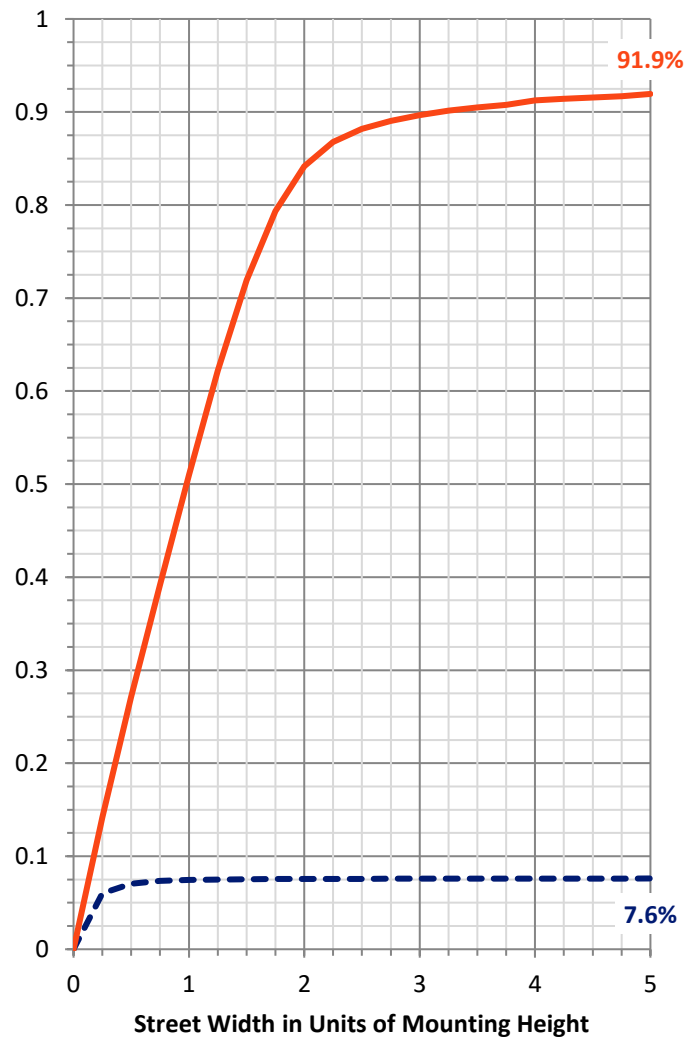
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	228.2	0.0	228.2
	% Fixture	7.7	0.0	7.7
Street Side	Lumens	2740.7	0.0	2740.7
	% Fixture	92.3	0.0	92.3
Total	Lumens	2969.0	0.0	2969.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.7	2.1
10°-20°	129.5	4.4
20°-30°	175.3	5.9
30°-40°	253.0	8.5
40°-50°	420.1	14.1
50°-60°	642.6	21.6
60°-70°	799.2	26.9
70°-80°	441.8	14.9
80°-90°	45.8	1.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	2969.0	100.0
0°-180°	2969.0	100.0



--- HS — SS

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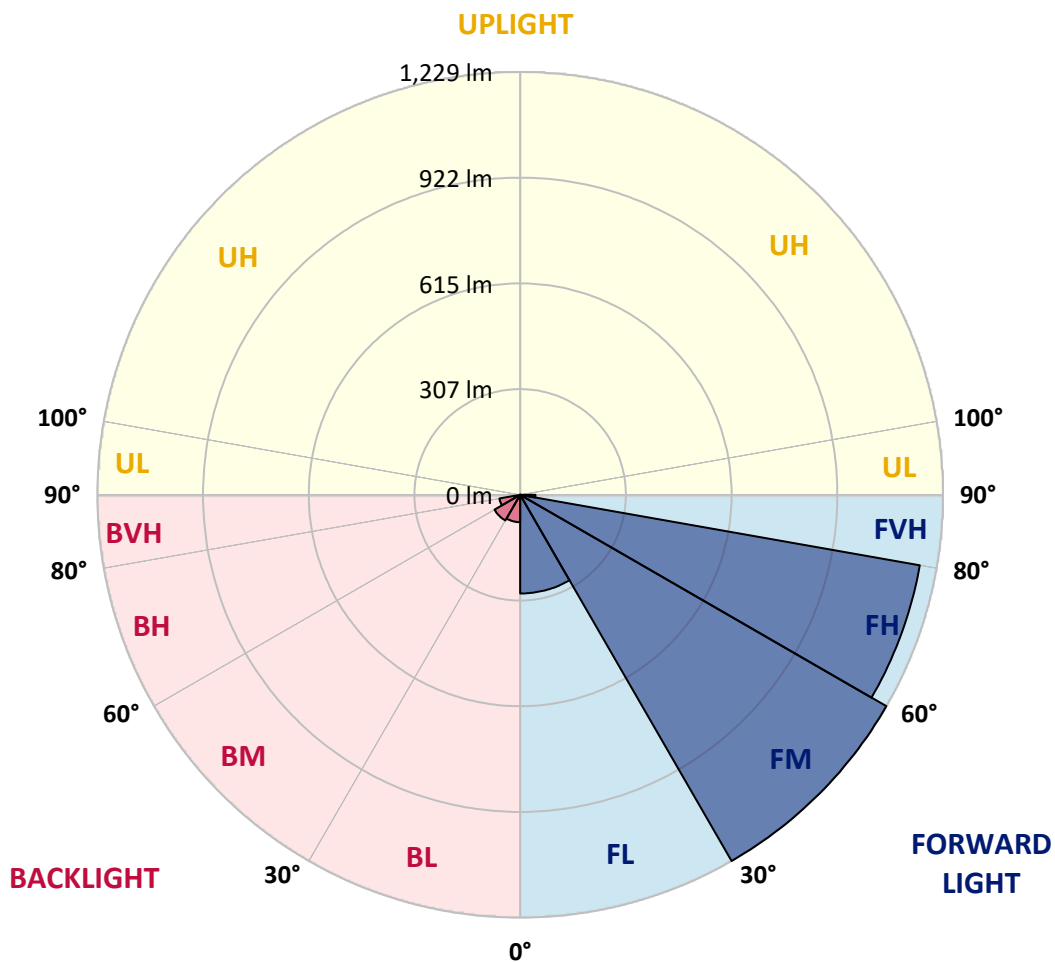
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	287.0	9.7			
FM	(30°-60°)	1229.5	41.4			
FH	(60°-80°)	1179.8	39.7			G1/1800
FVH	(80°-90°)	44.5	1.5			G1/100
BL	(0°-30°)	79.5	2.7	B0/110		
BM	(30°-60°)	86.2	2.9	B0/220		
BH	(60°-80°)	61.2	2.1	B0/110		G0/110
BVH	(80°-90°)	1.3	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	750.8	750.8	750.8	750.8	750.8	750.8	750.8	750.8	750.8	750.8	750.8
2.5°	848.5	847.3	841.7	840.5	834.3	821.8	807.1	801.4	789.5	770.7	749.8
5°	862.7	863.5	863.9	861.4	860.4	850.2	834.0	827.1	811.2	780.3	742.2
7.5°	809.9	811.7	817.3	819.8	830.6	834.5	831.1	826.7	814.1	777.7	724.2
10°	754.0	757.5	763.5	767.5	780.7	791.4	805.2	806.3	803.7	768.7	703.7
12.5°	706.2	709.3	715.9	724.2	737.6	751.4	771.9	779.0	788.0	762.8	689.2
15°	664.9	665.9	672.3	682.4	700.0	719.2	743.3	753.9	771.4	760.7	678.0
17.5°	629.0	629.2	633.3	642.6	664.0	689.2	717.3	731.3	753.5	757.5	668.1
20°	605.2	605.0	605.2	610.0	629.2	658.9	693.2	707.8	736.3	753.7	658.0
22.5°	597.2	595.9	590.8	589.1	601.1	627.3	668.2	687.4	720.7	752.5	650.6
25°	607.0	606.3	595.2	584.9	586.1	602.5	643.0	666.4	708.7	756.6	648.8
27.5°	638.8	637.3	620.5	600.4	587.8	590.6	624.2	648.7	699.1	766.4	651.4
30°	680.5	680.6	662.7	638.3	608.3	591.8	614.1	637.2	692.6	781.2	656.8
32.5°	726.8	726.5	713.9	685.5	647.3	612.4	618.7	638.1	693.4	802.9	667.0
35°	774.7	772.3	768.1	743.2	698.3	648.3	639.0	653.2	702.8	831.7	684.5
37.5°	830.0	829.1	833.4	807.1	761.6	701.4	674.8	684.5	726.5	874.0	712.6
40°	918.1	913.1	915.2	879.5	832.6	772.9	725.0	727.4	764.4	929.9	757.2
42.5°	1085.8	1065.8	1028.5	961.7	911.2	852.2	790.6	786.3	817.9	997.7	815.9
45°	1286.3	1263.5	1169.1	1052.5	989.6	937.3	871.6	860.2	883.8	1078.7	891.6
47.5°	1453.5	1428.9	1304.0	1147.1	1069.3	1025.1	961.5	948.2	962.7	1172.5	982.6
50°	1510.7	1497.0	1387.3	1225.9	1149.7	1123.7	1074.2	1051.7	1055.4	1273.7	1088.7
52.5°	1484.4	1479.8	1406.2	1279.9	1224.0	1232.6	1197.6	1174.1	1170.0	1384.4	1206.1
55°	1429.2	1426.9	1391.0	1310.0	1289.6	1332.1	1370.8	1350.3	1312.2	1502.0	1303.0
57.5°	1350.2	1358.5	1384.4	1367.8	1370.3	1437.5	1531.5	1542.0	1485.2	1595.6	1374.9
60°	1139.0	1161.8	1279.7	1429.8	1544.7	1612.5	1703.7	1723.5	1631.6	1659.6	1458.0
62.5°	841.9	874.6	1042.8	1318.5	1640.8	1945.5	1932.9	1924.1	1771.4	1745.3	1609.3
65°	494.5	532.9	675.0	1030.3	1495.9	2159.7	2360.7	2239.7	1984.4	1923.7	1850.0
67.5°	246.3	246.6	310.9	543.8	1105.5	2010.3	2985.1	2915.2	2437.2	2186.5	1945.0
70°	189.5	194.7	230.1	316.1	559.0	1565.7	3128.2	3415.0	2892.4	2174.7	1650.1
72.5°	160.5	163.9	204.8	275.1	417.9	859.6	2708.0	3018.7	2760.0	1837.5	1216.3
75°	115.5	118.2	181.2	249.5	384.7	426.4	1857.7	2238.8	2070.9	1292.5	669.4
77.5°	28.7	28.4	63.2	202.5	344.2	355.2	1065.8	1435.6	1188.2	529.2	172.0
80°	12.8	12.3	14.4	42.6	320.2	335.2	468.7	725.0	455.8	85.8	52.6
82.5°	9.0	8.5	9.0	15.7	107.1	311.2	283.3	314.2	166.8	29.4	22.4
85°	3.0	2.6	4.9	13.2	30.1	179.4	276.4	234.6	124.1	12.5	15.0
87.5°	0.4	0.4	1.7	7.1	8.8	59.7	162.1	162.7	55.8	7.4	6.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	750.8	750.8	750.8	750.8	750.8	750.8	750.8	750.8	750.8	750.8	750.8
2.5°	739.3	726.1	707.5	688.9	672.1	654.9	641.0	634.6	631.6	627.6	618.8
5°	722.2	698.3	657.6	617.5	580.0	544.3	513.7	496.1	477.3	476.5	467.2
7.5°	695.0	661.0	596.7	534.4	477.3	422.7	375.6	345.2	324.3	311.4	302.4
10°	664.6	620.9	535.7	448.2	370.5	297.3	237.0	197.5	173.6	161.4	154.6
12.5°	640.3	585.4	475.7	365.5	268.1	184.3	128.1	99.4	86.6	81.7	79.5
15°	619.6	552.9	419.5	291.6	178.9	105.9	74.1	64.7	62.7	62.7	62.5
17.5°	598.5	521.6	364.8	219.0	112.6	69.3	58.5	57.1	57.3	58.0	58.0
20°	578.5	491.8	312.3	156.1	73.9	55.5	53.1	52.6	53.3	54.2	54.0
22.5°	562.3	465.6	262.9	107.3	57.0	50.3	48.8	48.1	48.6	49.2	49.0
25°	551.0	443.3	217.7	74.7	49.4	46.0	44.1	43.2	42.8	43.2	42.9
27.5°	544.1	424.4	175.1	56.2	44.3	41.4	39.2	37.4	36.3	36.3	35.8
30°	539.5	406.8	137.4	46.6	40.1	37.0	33.9	31.4	29.6	29.1	28.8
32.5°	539.3	391.5	102.5	41.2	36.0	32.5	28.7	25.5	23.5	23.0	22.8
35°	544.9	379.2	75.5	37.2	32.5	28.2	24.0	20.7	18.9	18.9	18.5
37.5°	559.5	372.0	57.1	34.0	29.6	24.7	20.1	17.0	15.5	15.9	15.9
40°	586.6	370.7	46.6	31.6	27.0	21.5	16.3	13.8	13.2	13.8	13.8
42.5°	628.0	377.8	41.4	29.9	24.9	18.3	13.7	11.9	11.7	12.3	12.3
45°	682.1	391.9	38.4	28.2	22.4	15.2	11.4	10.3	10.2	11.0	11.0
47.5°	747.4	411.0	35.8	26.4	19.9	12.5	9.6	8.8	8.8	9.6	9.8
50°	824.9	436.8	33.1	24.7	18.0	10.5	8.1	7.4	7.6	8.5	8.8
52.5°	914.0	468.3	30.7	23.0	15.7	8.5	6.6	6.3	6.5	7.4	7.6
55°	990.8	495.9	27.8	21.5	12.8	6.9	5.6	5.4	5.6	6.6	6.6
57.5°	1057.8	522.4	25.2	19.0	10.2	5.6	4.5	4.5	4.9	6.1	6.3
60°	1146.7	564.0	22.8	16.1	7.6	4.2	3.7	3.9	4.5	5.4	5.6
62.5°	1304.2	634.7	19.9	13.5	5.6	3.4	3.0	3.1	4.0	5.1	5.4
65°	1501.2	701.7	16.6	11.1	4.2	2.4	2.2	3.0	4.0	5.1	5.4
67.5°	1481.1	610.3	12.9	9.0	3.1	2.1	1.7	2.6	3.9	5.1	5.4
70°	1201.2	427.9	9.6	6.1	2.4	1.7	1.7	2.6	3.9	4.9	5.1
72.5°	833.2	238.1	7.4	4.0	2.2	1.7	1.5	2.4	3.7	4.9	5.1
75°	396.4	73.0	5.7	3.0	2.1	1.5	1.3	2.4	3.7	4.9	5.1
77.5°	76.1	18.5	4.8	2.4	1.7	1.5	1.3	2.2	3.7	4.8	4.9
80°	25.7	8.3	3.9	2.2	1.7	1.5	1.3	2.2	3.4	4.5	4.8
82.5°	14.2	4.8	3.4	2.1	1.7	1.3	1.1	2.1	3.1	4.5	4.8
85°	11.0	3.4	2.6	2.1	1.7	1.3	1.1	2.1	3.1	4.2	4.5
87.5°	5.6	2.4	2.2	2.1	1.7	1.3	1.1	1.7	3.0	4.0	4.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)